

**To:** Schaeffer, Blake[Schaeffer.Blake@epa.gov]  
**Cc:** Tim Watkins (Watkins.Tim@epa.gov)[Watkins.Tim@epa.gov]  
**From:** Orme-Zavaleta, Jennifer  
**Sent:** Tue 8/11/2015 4:04:00 PM  
**Subject:** FW: Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

Keep me posted on this. Thanks for coordinating w NASA – might also want to touch base with Szykman

**From:** Sayles, Gregory  
**Sent:** Tuesday, August 11, 2015 12:03 PM  
**To:** Kavlock, Robert; Garrahan, Kevin  
**Cc:** Burke, Thomas; Orme-Zavaleta, Jennifer; Koglin, Eric  
**Subject:** RE: Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

Yes. Will do. Eric or Kevin will be in touch shortly.

**From:** Kavlock, Robert  
**Sent:** Tuesday, August 11, 2015 11:55 AM  
**To:** Garrahan, Kevin; Sayles, Gregory  
**Cc:** Burke, Thomas; Orme-Zavaleta, Jennifer  
**Subject:** FW: Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

And more.....

Can you get back with Blake.

**From:** Schaeffer, Blake

**Sent:** Tuesday, August 11, 2015 9:33 AM  
**To:** Kavlock, Robert  
**Subject:** Re: Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

Just got off the phone with him. He was out of the office yesterday.

He has sent out a call to find out what assets are already in the area. We only discussed aerial over flights. Right now it is likely possible to detect presence absences of the orange coloration. Costs would probably range in the \$10s of thousands for a ball park. They need to know the spatial extent that would be covered, do you have a lat/long coordinate polygon area?

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**From:** Kavlock, Robert  
**Sent:** Monday, August 10, 2015 5:51 PM  
**To:** Schaeffer, Blake  
**Subject:** RE: Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

Let me know if you get a call back from NASA

**From:** Schaeffer, Blake  
**Sent:** Monday, August 10, 2015 4:32 PM  
**To:** Kavlock, Robert  
**Subject:** RE: Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

Sounds like someone in EPA is already providing aerial support based on this article.

Blake A. Schaeffer, Ph.D.

Office of Research and Development

U.S. Environmental Protection Agency

[schaeffer.blake@epa.gov](mailto:schaeffer.blake@epa.gov) | 919-541-5571

**From:** Kavlock, Robert  
**Sent:** Monday, August 10, 2015 4:22 PM  
**To:** Schaeffer, Blake  
**Subject:** Fwd: Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

This is the one that I should have sent just before.

Begin forwarded message:

**From:** "Sayles, Gregory" <[Sayles.Gregory@epa.gov](mailto:Sayles.Gregory@epa.gov)>  
**Date:** August 10, 2015 at 2:47:23 PM EDT  
**To:** "Sonich-Mullin, Cynthia" <[Sonich-Mullin.Cynthia@epa.gov](mailto:Sonich-Mullin.Cynthia@epa.gov)>, "Orme-Zavaleta, Jennifer" <[Orme-Zavaleta.Jennifer@epa.gov](mailto:Orme-Zavaleta.Jennifer@epa.gov)>, "Benson, William" <[Benson.William@epa.gov](mailto:Benson.William@epa.gov)>, "Johnson, Jim" <[Johnson.Jim@epa.gov](mailto:Johnson.Jim@epa.gov)>, "Olden, Kenneth" <[Olden.Kenneth@epa.gov](mailto:Olden.Kenneth@epa.gov)>, "Costa, Dan" <[Costa.Dan@epa.gov](mailto:Costa.Dan@epa.gov)>, "vanDrunick, Suzanne" <[vanDrunick.Suzanne@epa.gov](mailto:vanDrunick.Suzanne@epa.gov)>, "Slimak, Michael" <[Slimak.Michael@epa.gov](mailto:Slimak.Michael@epa.gov)>, "Bahadori, Tina" <[Bahadori.Tina@epa.gov](mailto:Bahadori.Tina@epa.gov)>, "Hauchman, Fred" <[hauchman.fred@epa.gov](mailto:hauchman.fred@epa.gov)>  
**Cc:** "Steenbock, John" <[Steenbock.John@epa.gov](mailto:Steenbock.John@epa.gov)>, "Watkins, Tim" <[Watkins.Tim@epa.gov](mailto:Watkins.Tim@epa.gov)>, "Russo, Bill" <[Russo.Bill@epa.gov](mailto:Russo.Bill@epa.gov)>, "Radzikowski, Mary Ellen" <[Radzikowski.Maryellen@epa.gov](mailto:Radzikowski.Maryellen@epa.gov)>, "Vette, Alan" <[Vette.Alan@epa.gov](mailto:Vette.Alan@epa.gov)>, "Williams, Joe" <[Williams.Joe@epa.gov](mailto:Williams.Joe@epa.gov)>, "Geller, Andrew" <[Geller.Andrew@epa.gov](mailto:Geller.Andrew@epa.gov)>, "Ross, Mary" <[Ross.Mary@epa.gov](mailto:Ross.Mary@epa.gov)>, "Hubal, Elaine" <[Hubal.Elaine@epa.gov](mailto:Hubal.Elaine@epa.gov)>, "Dannel, Mimi" <[Dannel.Mimi@epa.gov](mailto:Dannel.Mimi@epa.gov)>, "Koglin, Eric" <[Koglin.Eric@epa.gov](mailto:Koglin.Eric@epa.gov)>, "Kavlock, Robert" <[Kavlock.Robert@epa.gov](mailto:Kavlock.Robert@epa.gov)>  
**Subject:** Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

L/C/NP Directors:

Efforts are cranking up fast across the Agency to respond to this metals and sediments release. Below is the latest report from EPA's EOC. Here is the latest from the Denver Post:

[http://www.denverpost.com/news/ci\\_28614946/epa-taking-damage-claims-toxic-spill-animas-river](http://www.denverpost.com/news/ci_28614946/epa-taking-damage-claims-toxic-spill-animas-river)

Tom Burke and Bob Kavlock are already heavily involved. So far, ORD has been asked for info on hydraulic models to understand fate and transport in the river, and for field, rapid kits/methods to measure metals from the river or from wells. So, far NRMRL, NERL and NHSRC have been contacted for technical advice.

EPA's HQ EOC was just activated.

I understand that we may hear more on our 3 PM call. I will keep you in the loop as this progresses.

Greg

**From:** Eoc, Epahq  
**Sent:** Sunday, August 09, 2015 2:06 PM  
**To:** Eoc, Epahq  
**Subject:** EOC Spot Report: Update #3, Region 8, Abandoned Mine Release into Animas River; San Juan County, CO

**This report is being sent as a bcc to prevent accidental Reply to All messages.**

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**EOC Spot Report: Update #3, Region 8, Abandoned Mine Release into Animas River; San Juan County, CO**

## **US Environmental Protection Agency**

**Report as of 1400 EDT on 8/9/2015**

**Overview:** On August 5th, an EPA and Colorado State Division of Reclamation Mining and Safety team was working to investigate and address contamination at the abandoned Gold King Mine in San Juan County, CO. This work resulted in a large release of mine wastewater into the upper portions of Cement Creek. Initial estimates indicate that the release is approximately one million gallons that was held behind unconsolidated debris near an abandoned mine portal. There were several workers at the site at the time of the breach and all were unharmed.

The acidic mine water associated with this release contains high levels of sediment and metals. EPA teams are conducting sampling and visual observations and will be monitoring river conditions. EPA recommends that recreational users of the Animas River avoid contact with or use of the river until the pulse of mine water passes. The water in Cement Creek and the Animas River in Silverton is clearing. The plume is moving at approximately 2.5 miles per hour in the San Juan River. A leading edge of the plume is becoming harder to identify as the pulse becomes more dilute. Analysis of photographic images indicate that the plume's leading edge on 8/8 was estimated to be just past Nenahnezad, NM (approximately 9 miles west of Farmington).

R8 is assessing damage near the mine portal and the release of water at the spill site is now diminished to 700 gallons per minute. The water is being treated with caustic soda and flocculants in settlement ponds prior to release. Baseline water quality data from the past 17 years has been obtained and will be compared with the new water quality data.

The R6 Mobile Command Post will arrive in New Mexico on 8/9.

A draft sampling plan is being developed to address sampling and analysis of sediment and well-water. This plan is being developed jointly by Region 6, 8 and 9. Sampling will continue throughout the impacted area as well as ahead of the plume to establish baseline water quality.

**State, Local and other Federal Agency Actions:** San Juan County officials are engaged in the response activities. State officials are also on scene. Following the release, the Colorado Department of Public Health and the Environment (CDPHE) notified water users downstream so they could take appropriate steps to turn off intakes until the contaminated water passes. The Colorado Fish and Wildlife Conservation Office is monitoring effects on wildlife and aquatic life in the affected area.

The La Plata County Sheriff issued an order closing the Animas River to all watercraft from the north County line (San Juan County, Colorado) to the south County line (at the Colorado/New Mexico State line) until further notice. Furthermore, all such watercraft must be removed from the Animas River within the locations cited above. The decision was made after consultation with the EPA, CDPHE, the San Juan Basin Health Department, and representatives of the Southern Ute Indian Tribe. The Order will remain in effect until it is determined that the river is safe. R8 contacted the US Fish and Wildlife Service and the US Department of Interior about this incident.

The Navajo Nation will issue an emergency declaration in Window Rock, AZ. The declaration will cover the entire San Juan River.

New Mexico is asking residents with that have concerns about their private water wells to bring samples to the County Fair in Farmington. R6 is consulting with New Mexico about this effort.

**EPA Actions:** R8 staff are coordinating with relevant county and city officials. EPA has met with San Juan County officials and La Plata County officials. R8 staff met with the Durango City Engineer to analyze and implement measures to protect the Durango drinking water supply. The R8 Regional Administrator flew to Durango on 8/7 and will meet OSCs and local officials, and attended a public meeting on the incident.

EPA is coordinating with ATSDR in response to public health concerns/questions associated with the mine waste plume. ATSDR has been in communication with local health officials at San Juan Basin Health Department in Colorado.

R8 requested support from EPA's Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft and the plane deployed on 8/6 to collect photographic images and report the location of the leading edge of the plume.

Region 8 is coordinating with Region 6 and Region 9 in response efforts. These Regions are coordinating with the States of Colorado, New Mexico, Utah, the Southern Ute Tribe and Navajo Nation. Region 6 is working closely with the New Mexico Environment Department (NMED). Potentially impacted water systems have been notified and precautions are in place to ensure drinking water is protected. Two R6 OSCs and two drinking water specialists are deploying to New Mexico. R8 and NMED are providing assistance to community water systems. Region 9 is deploying an OSC and coordinating with the Navajo Nation. All three Regions have Public Information Officers working together in this coordinated response.

A R6 OSC participated in a Community Meeting with NMED and other local officials. Several topics were discussed including: potential drinking water well sampling; potential public availability of sampling results; potential EPA reimbursement for state and locals; effect of the spill on livestock and irrigation; sediment sampling; current mine site status; questions regarding the tardiness of notification; and, the Navajo Nation requested that EPA meet with them on Monday (8/10) in Arizona (this will be passed on to Region 9.)

**Media Interest:** Medium

<http://www.usnews.com/news/us/articles/2015/08/08/wastewater-from-colorado-mine-flows-toward-new-mexico-utah>

<http://www.newsweek.com/epa-causes-massive-colorado-spill-1-million-gallons-mining-waste-turns-river-361019>

<http://www.pbs.org/newshour/rundown/epa-mine-spill/>

**The HQ EOC will continue to monitor and provided updates as needed.**

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Patrick Easter, Watch Officer

U.S. Environmental Protection Agency

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